

### Abstract of the Disclosure

The present invention features use of PMOS devices to realize switches of an integrated circuit charge pump, while maintaining a maximum voltage drop (lower than VDD) on each transistor. The charge pump includes a pumping capacitor connected to a pumping node, a first PMOS device connected to an input node, a second PMOS device connected to an output node, a third PMOS device electrically communicating with the first PMOS device, and an auxiliary capacitor connected to the first PMOS device. The first PMOS device is configured to connect the pumping node to the input node when the pumping capacitor is not boosted. The second PMOS device is configured to transfer electrical current from the pumping node to the output node when the pumping capacitor is not boosted.